

What is claimed is:

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1. A food-grade insecticidal composition comprising an amount of D-limonene sufficient to provide insect control, a non-toxic hydrophilic solvent, an amount of a non-toxic emulsifying agent sufficient to solubilize D-limonene in said non-toxic hydrophilic solvent, wherein the emulsifying agent is non-toxic to humans.

2. The insecticidal composition according to claim 1 comprising about 1% to about 20% by weight of D-limonene, about 1% to about 25% by weight said non-toxic emulsifying agent, and about 98% to about 55% by weight of said non-toxic hydrophilic solvent.

3. The insecticidal composition according to claim 1 further comprising an amount of at least one food-grade preservative sufficient to extend the effectiveness of said insecticidal composition.

4. The insecticidal composition according to claim 3 comprising about 0.01% to about 5% by weight of said preservative.

5. The insecticidal composition according to claim 1 wherein said amount of D-limonene sufficient to provide insect control is sufficient to repel an insect.

6. The insecticidal composition according to claim 1 wherein said amount of D-limonene sufficient to provide insect control is sufficient to kill an insect.

7. The insecticidal composition according to claim 1 wherein said non-toxic emulsifying agent is a polyethoxylated castor oil.

8. The insecticidal composition according to claim 1 wherein said non-toxic emulsifying agent is a polyoxyethylenesorbitan.

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9. The insecticidal composition according to claim 1 wherein said non-toxic hydrophilic solvent is water.

10. The insecticidal composition according to claim 2 wherein said preservative is a food preservative.

11. The insecticidal composition according to claim 1 which controls at least one insect selected from the group consisting of ants, aphids, mealy bugs, white flies, spider mites, leaf hoppers, cabbage loopers, leaf eating beetles and caterpillars, cockroaches, flies, wasps, body lice and head lice.

12. The insecticidal composition according to claim 1 comprising about 1% to about 10% by weight of D-limonene, about 5% to about 15% by weight of a non-toxic emulsifying agent, and about 94% to about 75% by weight of a non-toxic hydrophilic solvent.

13. A method of making an insecticidal composition comprising the step of combining an amount of D-limonene sufficient to provide insect control with a non-toxic hydrophilic solvent and an amount of a non-toxic emulsifying agent sufficient to solubilize D-limonene in said non-toxic hydrophilic solvent, wherein all said ingredients are food-grade.

14. The method of claim 13 comprising the step of combining about 1% to about 20% by weight of D-limonene, about 1% to about 25% by weight of said non-toxic emulsifying agent and about 97.99% to about 50% by weight of said non-toxic hydrophilic solvent.

15. The method of claim 14 wherein said solvent is water.

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17. A method of controlling insects comprising the step of applying the insecticidal composition of claim 1 to one selected from the group consisting of an insect, an insect trail, an insect nest, a building surface, a building perimeter, and a plant.

19. The method of claim 18 wherein said plants are selected from the group consisting of rose bushes and ornamentals.

20. A method of treating a human infected with lice comprising the steps of applying the composition of claim 1 to a portion of the human infected with the lice, allowing said composition to remain on the infected portion for a period of time and removing said composition.

21. A food-grade insecticidal composition comprising about 0.7% to about 1.5% by weight of D-limonene, about 1% to about 25% by weight of a castor oil and about 98% to about 55% by weight of a non-toxic hydrophilic solvent.

22. The insecticidal composition according to claim 21 further comprising an amount of at least one food-grade preservative sufficient to extend the effectiveness of the insecticidal composition.

23. The insecticidal composition according to claim 22 comprising about 0.01% to about 5% by weight of said preservative.

24. The insecticidal composition according to claim 21 comprising about 0.775% D-limonene.

25. A method of eradicating fire ants, comprising:

applying a formulation to an area to be eradicated of fire ants, wherein said formulation consists essentially of about 0.7% to about 1.5% D-limonene, about 1% to about 25% by weight of an emulsifying agent, and about 98% to about 55% by weight of a non-toxic hydrophilic solvent; and

✓ allowing said formulation to remain in contact with said area for a suitable period of time to eradicate said fire ants.

26. A method of eradicating fire ants, comprising:

applying a formulation to an area to be eradicated of fire ants, wherein said formulation consists essentially of about 0.7% to about 1.5% D-limonene, about 1% to about 25% by weight of an emulsifying agent, about 98% to about 55% by weight of a non-toxic hydrophilic solvent, and about 0.01% to about 5% by weight of a food-grade preservative ; and

allowing said formulation to remain in contact with said area for a suitable period of time to eradicate said fire ants.

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